

Statement of Basis


**Permit to Construct No. P-2009.0113
Project ID 61990**

**IPEX USA LLC
Preston, Idaho**

Facility ID 041-00014

Final

**May 23, 2018
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Permit Writer**



The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01. et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

ASTM	American Society for Testing and Materials
BRC	below regulatory concern for criteria pollutants as provided in IDAPA 58.01.01.221.01 or for TAP as provided in IDAPA 58.01.01.223.01
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CAS No.	Chemical Abstracts Service registry number
CFR	Code of Federal Regulations
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	CO ₂ equivalent emissions
COMS	continuous opacity monitoring systems
CVNAA	Cache Valley Nonattainment Area
DEQ	Department of Environmental Quality
EI	emission inventory
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
glycol	polyethylene glycol
gpm	gallons per minute
HAP	hazardous air pollutants
HHV	higher heating value
HVLP	high-volume low-pressure
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
iwg	inches of water gauge
lb/hr	pounds per hour
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
PAH	polycyclic aromatic hydrocarbons
PM	particulate matter
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
POM	polycyclic organic matter
PSD	Prevention of Significant Deterioration
psig	pounds per square inch gauge
PTC	permit to construct
PTE	potential to emit
PVC	polyvinyl chloride
RBLCL	RACT/BACT/LAER Clearinghouse
RACT	Reasonably Available Control Technology
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
SDS	Safety Data Sheets
SIP	State Implementation Plan
SM	synthetic minor
SO ₂	sulfur dioxide
SO _x	sulfur oxides
T/yr	tons per consecutive 12-calendar-month period
TAP	toxic air pollutants
VOC	volatile organic compounds

FACILITY INFORMATION

Description

IPEX USA LLC is a fabricator of polyvinyl chloride (PVC) plastic pipe and fittings that are used for a variety of residential, industrial, and commercial applications. The facility currently contains multiple natural gas combustion point sources (pipe heaters and space heating furnaces) and volatile organic compounds (VOC) emission generating area sources (gluing and coating operations).

IPEX USA LLC uses standard length PVC plastic pipe as a raw material. Full lengths of pipe are cut into required lengths on a saw. If pieces require modification, they are taken to a router station for drilling. Pieces are taken to the pulling station, where they are placed on a heated pad until they achieve desired flexibility. A heated mandrel is placed inside the pieces to be pulled through the router hole. Pieces are placed within polyethylene glycol tanks and heated for a time based on pipe thickness. Pieces are moved to a beelling station and placed on a mandrel to make either a hub or a gasket end. When finished, pieces are taken to the trim saw for any necessary trimming. If additional pieces are to be attached, pieces are taken to the gluing station. Fugitive particulates generated from cutting, drilling, and trimming are minimal and are captured by a filtration system within the building. Pieces may be painted within a designated spray booth using high-volume low-pressure (HVLP) spray guns. Fugitive particulate emissions generated from overspray are collected by air filters in the booth.

Permitting History

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

December 12, 2017	P-2009.0113 Project 61967, revision to change ownership. (A, but will become S upon issuance of this permit)
September 10, 2009	P-2008.0131, revision to change ownership. (S)
January 6, 2009	P-2008.0131, initial PTC an existing PVC pipe and fitting fabrication operation. (S)

Application Scope

This PTC is for a minor modification at an existing minor facility.

The applicant has proposed to:

- Operate an existing paint spray booth and conduct spray coating operations using HVLP spray guns within the spray booth.
- Increase facility-wide emission limit for volatile organic compounds (VOC) to accommodate spray coating operations.
- Revise permit conditions to remove usage limits for specific glues or adhesives, and replace with flexible limits allowing for coating usage scenarios.

Application Chronology

December 19, 2017	DEQ received an application.
January 10, 2018	DEQ received an application fee.
January 24 – February 8, 2018	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
January 22, 2018	DEQ made available the draft permit and statement of basis for peer and regional office review.
January 26, 2018	DEQ determined that the application was incomplete.
January 26, 2018	DEQ made available the draft permit and statement of basis for applicant review.

February 7, 2018	DEQ received supplemental information from the applicant.
February 16, 2018	DEQ determined that the application was complete.
February 16, 2018	DEQ made available an updated draft permit and statement of basis for applicant review.
March 28 – April 27, 2018	DEQ provided a public comment period on the proposed action.
May 16, 2018	DEQ received the permit processing fee.
May 23, 2018	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

The facility utilizes dry fiber filtration media for control of particulate matter emissions from coating operations. In addition, HVLP paint guns (or equivalent) are used to minimize particulate matter and VOC emissions from spray coating. HVLP spray guns minimize particulate matter and VOC emissions by having more coating materials transfer to the desired surfaces than traditional methods.

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION

Source	Control Equipment
<u>Square Heater</u> Fuel: Natural gas Heat input rating: 0.12 MMBtu/hr <u>Wall Heater</u> Fuel: Natural gas Heat input rating: 0.03 MMBtu/hr <u>Infrared Heater</u> Fuel: Natural gas Heat input rating: 1.2 MMBtu/hr <u>Forced Air Furnaces</u> Fuel: Natural gas Heat input rating: 1.685 MMBtu/hr	None
<u>Gluing Operations</u> Application of glues/adhesives	None
<u>Spray Coating Operations</u> Application of spray coatings	<u>Spray Booth</u> Manufacturer: Col-Met or equivalent Model: IB-14-12-07-00-S or equivalent Filter Manufacturer: Air Flow Technology or equivalent Filter Model: 15g or equivalent PM ₁₀ efficiency: 98% or greater <u>Spray Guns</u> Manufacturer: Central Pneumatic or equivalent Model: 62300 or equivalent Type: HVLP or equivalent Transfer Efficiency: 65% or greater

Emission Inventories

Potential to Emit

IDAPA 58.01.01 defines Potential to Emit (PTE) as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is state or federally enforceable. Secondary emissions do not count in determining the PTE of a facility or stationary source.

Using this definition of PTE, emission inventories were developed for adhesive/gluing and coating operations at the facility (see Appendix A) for the proposed project to determine facility-wide emission estimates of criteria and HAP PTE to demonstrate preconstruction compliance with TAP screening emission levels (EL) and “below regulatory concern” (BRC) criteria pollutant levels and to ensure HAP major source applicability thresholds were not exceeded.

Emission estimates were based on proposed daily usage rates from gluing and coating operations, manufacturer guarantees for transfer and filtration efficiencies, and process information specific to the facility for this proposed project. Calculations concerning specific coatings currently in use by the applicant were based on Safety Data Sheets (SDS) submitted with the application. Also resulting from SDS information, adhesive-specific TAP were incorporated into the TAP increment table (Table 3.3 of Permit Condition 3.11), including methacrylic acid, benzoyl peroxide, carbon tetrachloride, 2,6-di-tert-butyl-p-cresol (butylated hydroxytoluene), and hydroquinone.

The following table presents the PTE for regulated air pollutants as submitted by the applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations and the assumptions used to determine emissions for each modified emissions unit (gluing and coating operations).

Table 2 PTE FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀ /PM _{2.5}	SO ₂	NO _x	CO	VOC	Lead
	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)
Heaters	0.12	0.02	2.27	1.23	0.17	6.6E-06
Gluing & Coating Operations	0.24	0.00	0.00	0.00	19.17	0.0E+00
Total, Point Sources	0.36	0.02	2.27	1.23	19.34	0.000007
BRC thresholds^(b)	1.0	4.0	4.0	10.0	4.0	0.06

a) Controlled average emission rate in tons per year is an annual average, based on maximum daily average emissions and assuming continuous operation

b) Potential emission rates are considered “below regulatory concern” (BRC) for criteria pollutants when less than 10% of significant emission rates as defined in IDAPA 58.01.01.006

With the exception of volatile organic compounds, (VOC), facility-wide emission rates of criteria pollutants (PM_{2.5}, PM₁₀, SO₂, NO_x, CO, VOC, and lead) were below the “below regulatory concern” (BRC) threshold levels of less than 10% of “significant” emission rates for criteria pollutants defined in IDAPA 58.01.01.006.

The table below lists facility-wide emissions of individual and total HAP; see Appendix A for detailed calculations. As was done for criteria pollutants, controlled HAP emissions were calculated based on proposed daily usage rates from gluing and coating operations (as limited by the permit). Then, the worst-case maximum HAP PTE was determined for all spray coatings and adhesives listed in the spreadsheet.

Table 3 FACILITY-WIDE PTE HAP ^(a)

HAP ^(a)	Combined Emissions T/yr ^(b)
Organic PAH	
2-Methylnaphthalene	< 3.19E-07
3-Methylchloranthrene	< 2.39E-08
Acenaphthene	< 2.39E-08
Acenaphthylene	< 2.39E-08
Anthracene	< 3.19E-08
Benzo(a)anthracene	< 2.39E-08
Benzo(a)pyrene	< 1.60E-08
Benzo(b)fluoranthene	< 2.39E-08
Benzo(g,h,i)perylene	< 1.60E-08
Benzo(k)fluoranthene	< 2.39E-08
Chrysene	< 2.39E-08
Dibenzo(a,h)anthracene	< 1.60E-08
7,12-Dimethylbenz(a)anthracene	< 2.13E-07
Fluoranthene	< 3.99E-08
Fluorene	< 3.72E-08
Indeno(1,2,3-cd)pyrene	< 2.39E-08
Naphthalene	< 2.11E+00
Phenanthrene	< 2.26E-07
Pyrene	< 6.65E-08
Polycyclic Organic Matter (POM, 7-PAH)	< 1.52E-07
Organic Non-PAH	
1,4-Dichlorobenzene	< 1.60E-05
Carbon Tetrachloride	< 1.58E-03
Ethyl Benzene	< 5.53E-01
Hexamethylene Diisocyanate	< 7.87E-03
n-Hexane	< 3.88E+00
Hydroquinone	< 1.58E-03
Methanol	< 1.47E-01
1-Methoxy-2-Propanol Acetate	< 1.26E+00
Methyl Chloroform	< 0.00E+00
Methyl Isobutyl Ketone	< 1.13E+00
Methyl Methacrylate	< 9.26E+00
Phenol	< 0.00E+00
Styrene	< 2.48E+00
Toluene	< 3.85E+00
Xylene	< 2.00E+00

Table 3 (continued)

HAP ^(a)	Combined Emissions T/yr ^(b)
Metal	
Antimony	< 7.35E-03
Arsenic	< 2.66E-06
Beryllium	< 1.60E-07
Cadmium	< 1.46E-05
Chromium	< 1.86E-05
Cobalt	< 1.12E-06
Copper	< 1.13E-05
Iron Oxide Fume	< 0.00E+00
Manganese	< 5.05E-06
Nickel	< 2.79E-05
Vanadium	< 3.06E-05
Inorganic	
Selenium	< 3.19E-07
Maximum Individual HAP	5.62
Total HAP	19.17

a) Potential to emit hazardous air pollutants (PTE HAP)

b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits

Due to the modified approach required when estimating emissions to allow for compliance (in the revised permit) with coating usage scenarios, and because only specific glues were analyzed in the initial permitting action (P-2008.0131), it was conservatively assumed that all pre-project HAP and TAP emissions from gluing and coating operations were zero when calculating HAP and TAP emission increases.

Pre-Project PTE from Gluing And Coating Operations

Pre-project PTE is used to establish the change in emissions at a facility as a result of this project. Permitted emissions for existing gluing operations (P-2008.0131) were used to determine pre-project PTE. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 4 PRE-PROJECT EMISSIONS FROM GLUING AND COATING OPERATIONS FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀ /PM _{2.5}	SO ₂	NO _x	CO	VOC	Lead
	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)
Gluing & Coating Operations	0.00	0.00	0.00	0.00	9.41	0.00
Pre-Project Totals	0.00	0.00	0.00	0.00	9.41	0.00

a) Controlled average emission rate in tons per year is an annual average, based on maximum daily average emissions and assuming continuous operation

Post-Project PTE from Gluing And Coating Operations

Post-project PTE is used to establish the change in emissions at a facility and to determine the facility's classification as a result of this project. Post-project PTE includes all permit limits resulting from this project, including changes to gluing operation limits and the introduction of coating operations.

The following table presents the post project PTE for criteria pollutants from gluing and coating operations as determined by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions.

Table 5 POST-PROJECT EMISSIONS FROM GLUING AND COATING OPERATIONS FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀ /PM _{2.5}	SO ₂	NO _x	CO	VOC	Lead
	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)
Gluing & Coating Operations	0.24	0.00	0.00	0.00	19.17	0.00
Post-Project Totals	0.24	0.00	0.00	0.00	19.17	0.00

a) Controlled average emission rate in tons per year is an annual average, based on maximum daily average emissions and assuming continuous operation

Change in PTE

The change in facility-wide PTE is used to determine if a public comment period may be required and to determine the processing fee per IDAPA 58.01.01.225. The following table presents the facility-wide change in the PTE for criteria pollutants.

Table 6 CHANGES IN PTE FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀ /PM _{2.5}	SO ₂	NO _x	CO	VOC	Lead
	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)	T/yr ^(a)
Pre-Project PTE	0.00	0.00	0.00	0.00	9.41	0.00
Post-Project PTE	0.24	0.00	0.00	0.00	19.17	0.00
Post-Project Totals	0.24	0.00	0.00	0.00	9.76	0.00

a) Controlled average emission rate in tons per year is an annual average, based on maximum daily average emissions and assuming continuous operation

Non-Carcinogenic and Carcinogenic TAP PTE

Because of the daily coating material use limits imposed by DEQ, and agreed to by the facility in applying for this permit, no EL specified in IDAPA 58.01.01.585 or 586 are expected to be exceeded by the facility (see Appendix A). Due to the modified approach required when estimating emissions to allow for compliance (in the revised permit) with coating usage scenarios, and because only specific glues were analyzed in the initial permitting action (P-2008.0131), it was conservatively assumed that all pre-project HAP and TAP emissions from gluing and coating operations were zero when calculating HAP and TAP emission increases.

A summary of the estimated PTE for emissions increase of toxic air pollutants (TAP) is provided in the following table.

Table 7 PRE- AND POST-PROJECT PTE TAP ^(a)

	Gluing & Coating Emissions lb/hr	Heater Emissions lb/hr	Combined Emissions lb/hr	EL ^(b) lb/hr	Below Threshold?
Organic HAP PAH ^(c,d)					
2-Methylnaphthalene	0.00E+00	7.28E-08	< 7.28E-08	9.10E-05	Yes
3-Methylchloranthrene	0.00E+00	5.46E-09	< 5.46E-09	2.50E-06	Yes
Acenaphthene	0.00E+00	5.46E-09	< 5.46E-09	9.10E-05	Yes
Acenaphthylene	0.00E+00	5.46E-09	< 5.46E-09	9.10E-05	Yes
Anthracene	0.00E+00	7.28E-09	< 7.28E-09	9.10E-05	Yes
Benzo(a)anthracene	0.00E+00	5.46E-09	< 5.46E-09	9.10E-05	See POM
Benzo(a)pyrene	0.00E+00	3.64E-09	< 3.64E-09	2.00E-06	See POM
Benzo(b)fluoranthene	0.00E+00	5.46E-09	< 5.46E-09		See POM
Benzo(g,h,i)perylene	0.00E+00	3.64E-09	< 3.64E-09	9.10E-05	Yes
Benzo(k)fluoranthene	0.00E+00	5.46E-09	< 5.46E-09		See POM
Chrysene	0.00E+00	5.46E-09	< 5.46E-09		See POM
Dibenzo(a,h)anthracene	0.00E+00	3.64E-09	< 3.64E-09		See POM
7,12-Dimethylbenz(a)anthracene	0.00E+00	4.86E-08	< 4.86E-08	9.10E-05	Yes
Fluoranthene	0.00E+00	9.11E-09	< 9.11E-09	9.10E-05	Yes
Fluorene	0.00E+00	8.50E-09	< 8.50E-09	9.10E-05	Yes
Indeno(1,2,3-cd)pyrene	0.00E+00	5.46E-09	< 5.46E-09		See POM
Naphthalene	4.81E-01	1.85E-06	< 4.81E-01	3.33E+00	Yes
Phenanthrene	0.00E+00	5.16E-08	< 5.16E-08	9.10E-05	Yes
Pyrene	0.00E+00	1.52E-08	< 1.52E-08	9.10E-05	Yes
Polycyclic Organic Matter (POM,7-PAH) ^(d)	0.00E+00	3.46E-08	< 3.46E-08	2.00E-06	Yes
Organic HAP Non-PAH ^(c,d)					
1,4-Dichlorobenzene	0.00E+00	3.64E-06	< 3.64E-06	3.00E+01	Yes
<i>Carbon Tetrachloride</i>	3.61E-04	0.00E+00	< 3.61E-04	4.40E-04	Yes
Ethyl Benzene	1.26E-01	0.00E+00	< 1.26E-01	2.90E+01	Yes
Hexamethylene Diisocyanate	1.80E-03	0.00E+00	< 1.80E-03	2.00E-03	Yes
n-Hexane	8.80E-01	5.46E-03	< 8.85E-01	1.20E+01	Yes
<i>Hydroquinone</i>	3.61E-04	0.00E+00	< 3.61E-04	1.33E-01	Yes
Methanol	3.35E-02	0.00E+00	< 3.35E-02	1.73E+01	Yes
1-Methoxy-2-Propanol Acetate	2.89E-01	0.00E+00	< 2.89E-01	2.40E+01	Yes
Methyl Chloroform	0.00E+00	0.00E+00	0.00E+00	1.27E+02	Yes
Methyl Isobutyl Ketone	2.59E-01	0.00E+00	< 2.59E-01	1.37E+01	Yes
Methyl Methacrylate	2.11E+00	0.00E+00	< 2.11E+00	2.73E+01	Yes
Phenol	0.00E+00	0.00E+00	0.00E+00	1.27E+00	Yes
Styrene	5.67E-01	0.00E+00	< 5.67E-01	6.67E+00	Yes
Toluene	8.80E-01	1.03E-05	< 8.80E-01	2.50E+01	Yes
Xylene	4.57E-01	0.00E+00	< 4.57E-01	2.90E+01	Yes

Table 7 (continued)

	Gluings & Coating Emissions lb/hr	Heater Emissions lb/hr	Combined Emissions lb/hr	Modeling Threshold EL (lb/hr)	Below Threshold?
Organic Non-HAP^(c)					
Acetone	7.22E-01	0.00E+00	< 7.22E-01	1.19E+02	Yes
n-Amyl Acetate	1.50E-02	0.00E+00	< 1.50E-02	3.53E+01	Yes
2-Butoxyethanol	0.00E+00	0.00E+00	0.00E+00	8.00E+00	Yes
<i>Benzoyl Peroxide</i>	2.27E-01	0.00E+00	< 2.27E-01	3.33E-01	Yes
Butyl Acetate	1.07E+00	0.00E+00	< 1.07E+00	4.73E+01	Yes
Carbon Black	7.50E-04	0.00E+00	< 7.50E-04	2.30E-01	Yes
Cyclohexane	1.16E-02	0.00E+00	< 1.16E-02	7.00E+01	Yes
Cyclohexanone	4.41E-01	0.00E+00	< 4.41E-01	6.67E+00	Yes
Diisobutyl Ketone	7.47E-02	0.00E+00	< 7.47E-02	9.67E+00	Yes
Dipropylene Glycol Methyl Ether	9.54E-01	0.00E+00	< 9.54E-01	4.00E+01	Yes
<i>2,6-Di-tert-butyl-p-cresol</i>	0.00E+00	0.00E+00	0.00E+00	6.67E-01	Yes
Ethyl Acetate	2.22E-01	0.00E+00	< 2.22E-01	9.33E+01	Yes
Ethyl Alcohol	6.00E-02	0.00E+00	< 6.00E-02	1.25E+02	Yes
Heptane	8.37E-02	0.00E+00	< 8.37E-02	1.09E+02	Yes
Isobutanol	3.20E-01	0.00E+00	< 3.20E-01	1.00E+01	Yes
Isobutyl Acetate	6.60E-02	0.00E+00	< 6.60E-02	4.67E+01	Yes
Isobutyl Alcohol	3.20E-01	0.00E+00	< 3.20E-01	1.00E+01	Yes
Isophorone Diisocyanate	2.61E-03	0.00E+00	< 2.61E-03	6.00E-03	Yes
Isopropyl Alcohol (IPA)	5.97E-01	0.00E+00	< 5.97E-01	6.53E+01	Yes
Isopropyl Acetate	0.00E+00	0.00E+00	0.00E+00	6.93E+01	Yes
<i>Methacrylic Acid</i>	1.51E-01	0.00E+00	< 1.51E-01	4.67E+00	Yes
Methyl Acetate	2.99E-01	0.00E+00	< 2.99E-01	4.07E+01	Yes
Methyl Ethyl Ketone	8.68E-01	0.00E+00	< 8.68E-01	3.93E+01	Yes
Methyl Isoamyl Ketone	9.22E-02	0.00E+00	< 9.22E-02	1.60E+01	Yes
Methyl Isobutyl Carbinol	0.00E+00	0.00E+00	0.00E+00	6.93E+00	Yes
Methyl Propyl Ketone	1.42E-01	0.00E+00	< 1.42E-01	4.67E+01	Yes
Propionic Acid	1.36E-02	0.00E+00	< 1.36E-02	2.00E+00	Yes
Stoddard Solvent	6.07E-01	0.00E+00	< 6.07E-01	3.50E+01	Yes
Tetrahydrofuran	8.75E-01	0.00E+00	< 8.75E-01	3.93E+01	Yes
Trimethyl Benzene	1.69E-01	0.00E+00	< 1.69E-01	8.20E+00	Yes

Table 7 (continued)

	Gluing & Coating Emissions lb/hr	Heater Emissions lb/hr	Combined Emissions lb/hr	Modeling Threshold EL (lb/hr)	Below Threshold?
Metal HAP^(c)					
Antimony	1.68E-03	0.00E+00	< 1.68E-03	3.30E-02	Yes
Arsenic	0.00E+00	6.07E-07	< 6.07E-07	1.50E-06	Yes
Beryllium	0.00E+00	3.64E-08	< 3.64E-08	2.80E-05	Yes
Cadmium	0.00E+00	3.34E-06	< 3.34E-06	3.70E-06	Yes
Chromium	0.00E+00	4.25E-06	< 4.25E-06	3.30E-02	Yes
Cobalt	0.00E+00	2.55E-07	< 2.55E-07	3.30E-03	Yes
Copper	0.00E+00	2.58E-06	< 2.58E-06	1.30E-02	Yes
Iron Oxide Fume	0.00E+00	0.00E+00	0.00E+00	3.33E-01	Yes
Manganese	0.00E+00	1.15E-06	< 1.15E-06	3.33E-01	Yes
Nickel	0.00E+00	6.37E-06	< 6.37E-06	2.70E-05	Yes
Vanadium	0.00E+00	6.98E-06	< 6.98E-06	3.00E-03	Yes
Metal Non-HAP^(c)					
Aluminum - Metal & Oxide	2.94E-03	0.00E+00	< 2.94E-03	6.67E-01	Yes
Aluminum - Soluble Salts	0.00E+00	0.00E+00	0.00E+00	1.33E-01	Yes
Barium	1.95E-04	1.34E-05	< 2.09E-04	3.30E-02	Yes
Molybdenum	3.61E-02	3.34E-06	< 3.61E-02	3.33E-01	Yes
Inorganic HAP^(c)					
Selenium	0.00E+00	7.28E-08	< 7.28E-08	1.30E-02	Yes
Inorganic Non-HAP^(c)					
Calcium Carbonate	1.17E-03	0.00E+00	< 1.17E-03	6.67E-01	Yes
Kaolin	3.54E-03	0.00E+00	< 3.54E-03	1.33E-01	Yes
Magnesite	0.00E+00	0.00E+00	0.00E+00	6.67E-01	Yes
Mica	0.00E+00	0.00E+00	0.00E+00	2.00E-01	Yes
Silica - Amorphous	1.50E-03	0.00E+00	< 1.50E-03	6.67E-01	Yes
Silica - Crystalline Cristobalite	0.00E+00	0.00E+00	0.00E+00	3.30E-03	Yes
Silica - Crystalline Quartz	2.11E-03	0.00E+00	< 2.11E-03	6.70E-03	Yes
Zinc and Zinc Oxide Dust	0.00E+00	8.80E-05	< 8.80E-05	6.67E-01	Yes

a) Potential to emit toxic air pollutants as specified in IDAPA 58.01.01.585-586 (PTE TAP)

b) Emission screening level (EL) as specified in IDAPA 58.01.01.585-586

c) Hazardous air pollutants (HAP) as specified in Section 112 of the Clean Air Act

d) Polycyclic aromatic hydrocarbons (PAH) and polycyclic organic matter (POM) as specified in IDAPA 58.01.01.586

Since none of the emission screening levels (EL) for TAP in IDAPA 58.01.01.585-586 were exceeded as a result of this project, modeling was not required for TAP.

Ambient Air Quality Impact Analyses

Because facility-wide emission rates of criteria pollutants (PM_{2.5}, PM₁₀, SO₂, NO_x, CO, VOC, and lead) were below the “below regulatory concern” (BRC) threshold levels of less than 10% of “significant” emission rates for criteria pollutants defined in IDAPA 58.01.01.006, and because no TAP exceeded EL, no ambient air quality impact analysis was required. The applicant has demonstrated pre-construction compliance to DEQ’s satisfaction that emissions from this facility will not cause or significantly contribute to a violation of any ambient air quality standard. Refer to the Emission Inventories section for additional information concerning the emission inventories.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Cache Valley Nonattainment Area (CVNAA), which is designated as attainment or unclassifiable for PM₁₀, SO₂, NO₂, CO, and Ozone, and nonattainment for PM_{2.5}. Refer to 40 CFR 81.313 for additional information.

Although not required for permit issuance, a review of recent permitting projects in EPA's RACT/BACT/LAER and other clearinghouses supports that use of HVLP spray guns (or equivalent) to achieve 65% or greater transfer efficiency and use of spray booth filtration to achieve 98% or greater reduction in PM emissions are equivalent to reasonably available control technologies (RACT) for spray coating operations. HVLP and filtration controls are also compliant with maximum available control technology (MACT) requirements for control of HAP emissions from spray coating operations, as specified in 40 CFR 63, Subpart HHHHHH.

Facility Classification

As demonstrated in Table 2 the facility has a PTE PM₁₀, SO₂, NO_x, CO, and VOC emissions at less than the Major Source thresholds of 100 T/yr for each pollutant. As demonstrated in Table 3, the facility has PTE each HAP at less than the Major Source threshold of 10 T/yr and for all HAP combined less than the Major Source threshold of 25 T/yr. Therefore, this facility is classified as a synthetic minor source and is classified as a "SM80" source.

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201 Permit to Construct Required

The permittee has requested that a PTC be issued to the facility for proposed and existing emission sources and to revise PTC limits. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

Tier II Operating Permit (IDAPA 58.01.01.401)

IDAPA 58.01.01.401 Tier II Operating Permit

The application was submitted for a permit to construct (refer to the Permit to Construct (IDAPA 58.01.01.201) section), and an optional Tier II operating permit has not been requested. Therefore, the procedures of IDAPA 58.01.01.400-410 were not applicable to this permitting action.

Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

IDAPA 58.01.01.301 Requirement to Obtain Tier I Operating Permit

Post-project facility-wide emissions from this facility do not have a PTE greater than 100 tons per year for (PM₁₀, SO₂, NO_x, CO, VOC, and HAP) or 10 tons per year for any one HAP or 25 tons per year for all HAP combined (list HAP or HAP) as demonstrated previously in the Emission Inventories section of this analysis. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 do not apply.

PSD Classification (40 CFR 52.21)

40 CFR 52.21 Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

NSPS Applicability (40 CFR 60)

The facility is not subject to any NSPS requirements 40 CFR Part 60.

NESHAP Applicability (40 CFR 61)

The facility is not subject to any NESHAP requirements in 40 CFR 61.

MACT/GACT Applicability (40 CFR 63)

The emission sources are not affected sources subject to NESHAP in 40 CFR Part 63, and this permitting action does not alter the applicability status of existing affected sources at the facility.

40 CFR 63, Subpart HHHHHH..... *National Emission Standards for Hazardous Air Pollutants:
Paint Stripping and Miscellaneous Surface Coating Operations
at Area Sources*

§ 60.11169 *What is the purpose of this subpart?*

Except as provided in paragraph (d) of this section, this subpart establishes national emission standards for hazardous air pollutants (HAP) for area sources involved in any of the activities in paragraphs (a) through (c) of this section. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission standards contained herein.

- (a) Paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl), Chemical Abstract Service number 75092, in paint removal processes;*
- (b) Autobody refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations;*
- (c) Spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), collectively referred to as the target HAP to any part or product made of metal or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment.*
- (d) This subpart does not apply to any of the activities described in paragraph (d)(1) through (6) of this section.*
 - (1) Surface coating or paint stripping performed on site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State), the National Aeronautics and Space Administration, or the National Nuclear Security Administration.*
 - (2) Surface coating or paint stripping of military munitions, as defined in §63.11180, manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or equipment directly and exclusively used for the purposes of transporting military munitions.*
 - (3) Surface coating or paint stripping performed by individuals on their personal vehicles, possessions, or property, either as a hobby or for maintenance of their personal vehicles, possessions, or property. This subpart also does not apply when these operations are performed by individuals for others without compensation. An individual who spray applies surface coating to more than two motor vehicles or pieces of mobile equipment per year is subject to the requirements in this subpart that pertain to motor vehicle and mobile equipment surface coating regardless of whether compensation is received.*

- (4) Surface coating or paint stripping that meets the definition of “research and laboratory activities” in §63.11180.
- (5) Surface coating or paint stripping that meets the definition of “quality control activities” in §63.11180.
- (6) Surface coating or paint stripping activities that are covered under another area source NESHAP.

§ 63.11170 Am I subject to this subpart?

- (a) You are subject to this subpart if you operate an area source of HAP as defined in paragraph (b) of this section, including sources that are part of a tribal, local, State, or Federal facility and you perform one or more of the activities in paragraphs (a)(1) through (3) of this section:
 - (1) Perform paint stripping using MeCl for the removal of dried paint (including, but not limited to, paint, enamel, varnish, shellac, and lacquer) from wood, metal, plastic, and other substrates.
 - (2) Perform spray application of coatings, as defined in §63.11180, to motor vehicles and mobile equipment including operations that are located in stationary structures at fixed locations, and mobile repair and refinishing operations that travel to the customer's location, except spray coating applications that meet the definition of facility maintenance in §63.11180. However, if you are the owner or operator of a motor vehicle or mobile equipment surface coating operation, you may petition the Administrator for an exemption from this subpart if you can demonstrate, to the satisfaction of the Administrator, that you spray apply no coatings that contain the target HAP, as defined in §63.11180. Petitions must include a description of the coatings that you spray apply and your certification that you do not spray apply any coatings containing the target HAP. If circumstances change such that you intend to spray apply coatings containing the target HAP, you must submit the initial notification required by 63.11175 and comply with the requirements of this subpart.
 - (3) Perform spray application of coatings that contain the target HAP, as defined in §63.11180, to a plastic and/or metal substrate on a part or product, except spray coating applications that meet the definition of facility maintenance or space vehicle in §63.11180.

In accordance with §63.11169, subpart HHHHHH establishes national emission standards for hazardous air pollutants (HAP) for area sources involved in autobody refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations.

In accordance with §63.11170(a), coating and stripping operations at this facility are not subject to this subpart because the permittee has not proposed conducting autobody refinishing, paint stripping using methylene chloride (MeCl), or spray coating using coatings containing metal target HAP (chromium, lead, manganese, nickel, or cadmium). Use of such coatings is prohibited by Permit Conditions 3.6 and 3.7.

Permit Conditions Review

This section describes only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

Permit Conditions 1.1 through 2.1 and 3.1 through 3.2 establish the scope of this permitting action and describe the regulated sources, the process, and the control devices used by the facility for informational purposes.

Process and control device descriptions were revised in Table 1.1 and Table 3.1 to include a description of the spray booth and spray guns and to remove reference to specific coating materials to allow for compliance with daily glue and coating usage scenarios (Permit Conditions 3.9–3.12). Reference to polyethylene glycol tank heaters was removed from Table 2.1, because these emission sources have been converted to electric power and are no longer regulated by this permit.

Revised Permit Conditions 1.4, 2.3, and 2.4 (Permit Conditions 1.4, 2.3, and 2.4 of P-2009.0113 Project 61967) and added Permit Condition 3.5

Regulated Sources

1.4 Table 1.1 lists all sources of regulated emissions in this PTC.

Table 1.1 REGULATED SOURCES

Permit Section	Source Description	Emissions Control
2	<u>Glycol tank heater</u> Natural gas-fired heater with a rated heat capacity of 1.85 MMBtu/hr <u>Square heater</u> Natural gas-fired heater with a rated heat capacity of 0.12 MMBtu/hr <u>Wall heater</u> Natural gas-fired heater with a rated heat capacity of 0.03 MMBtu/hr <u>Infrared heater</u> Natural gas-fired heater with a rated heat capacity of 1.2 MMBtu/hr <u>Forced-air furnaces</u> Natural gas-fired heater with a rated heat capacity of 1.685 MMBtu/hr	None
3	<u>Gluing Station Process</u> Adhesives use - IPS Corp. Weld-On P-70 primer, IPS Corp. Weld-On 811 A-B epoxy, Arrow Adhesives AA-2304 contact cement, IPS Corp. 1969 green glue, Weld-On 711 white glue, Weld-On 711 grey glue, Weld-On 719 white glue, and Weld-On 719 grey glue	Annual Use limits

2.3 Opacity Limit

Emissions from the glycol tank heater, square heaters, wall heaters, infrared heaters, and the forced air furnaces stack, or any other stack, vent, or functionally equivalent opening associated with the glycol tanks, square heaters, wall heaters, infrared heaters, and the forced air furnaces, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

2.4 Permitted fuel

The glycol tanks, square heaters, wall heaters, infrared heaters, and the forced air furnaces shall only combust natural gas as fuel.

The opacity limit and permitted fuel requirements were revised to include the spray booth and to remove reference to the polyethylene glycol tank heaters.

Revised Permit Conditions 3.2, 3.3, 3.14 and 3.15 (Permit Conditions 2.3, 3.3, 3.5, 3.7, and 3.8 of P-2009.0113 Project 61967) and added Permit Conditions 3.9 through 3.12 and 3.17

3.2 Emissions Control Description

Table 3.1 GLUING STATION PROCESS DESCRIPTION

Emissions Unit/Process	Emissions Control Device	Emissions Point
IPS Corp. Weld-On P-70 primer, IPS Corp. Weld-On 811 A-B epoxy, Arrow Adhesives AA-2304 contact cement, IPS Corp. 1969 green glue, IPS Corp. Weld-On 711 white glue, IPS Corp. Weld-On 711 grey glue, IPS Corp. Weld-On 719 white glue, and IPS Corp. Weld-On 719 grey glue	Annual Limits on Material Usage	Fugitive

3.3 VOC Emission Limits

The VOC emissions from the gluing station process shall not exceed 9.41 T/yr based upon primer, epoxy, contact cement, and glue use.

3.5 *Primer, Epoxy, Contact Cement, and Glue Use Limits*

The primer, epoxy, contact cement, and glue use in the gluing station process shall not exceed any of the following limits:

- 2,000 gal/yr of IPS Corp. Weld-On P-70 primer, or
- 7.93 gal/yr (30 l/yr) of IPS Corp. Weld-On 811 A-B epoxy, or
- 100 gal/yr of Arrow Adhesives AA-2304 contact cement, or
- 300 gal/yr of IPS Corp. 1969 green glue, or
- 150 gal/yr of IPS Corp. Weld-On 711 white glue, or
- 30 gal/yr of IPS Corp. Weld-On 711 grey glue, or
- 1,500 gal/yr of IPS Corp. Weld-On 719 white glue, or
- 200 gal/yr of IPS Corp. Weld-On 719 grey glue.

3.7 *Material Usage Records*

The permittee shall monitor and record monthly, in gallons, the usage of all primer, epoxy, contact cement, and glue materials used in the gluing station process.

3.8 *VOC Emissions Monitoring Requirements*

Using the purchase records and MSDS required by Permit Condition 3.6 and the material usage records required by Permit Condition 3.7, the permittee shall monitor and record the monthly and annual VOC emissions in tons from the gluing station process in order to demonstrate compliance with the VOC Emissions Limits Permit Condition.

Monthly VOC emissions shall be calculated as follows:

*Total monthly VOC emissions = [Percent VOC content (material #1) ÷ 100 x Density in pounds per gallon (material #1) x monthly usage in gallons (material #1)] ÷ 2,000 pounds per ton + ...
+ [Percent VOC content (material #n) ÷ 100 x Density in pounds per gallon (material #n) x monthly usage in gallons (material #n)] ÷ 2,000 pounds per ton.*

Annual VOC emissions shall be determined by summing total monthly VOC emissions over each previous consecutive 12-month period.

Emission limits and monitoring were revised, and usage limits for specific primer, epoxy, contact cement, and glue materials removed to accommodate flexible daily usage limits corresponding to broad categories of glues and coatings, or as determined by using the daily glue and coating usage scenario compliance option (Permit Conditions 3.9–3.12). PM₁₀ and VOC emission limits were required to ensure “below regulatory concern” (BRC) thresholds are not exceeded of criteria pollutants and TAP, for which a preconstruction modeling demonstration would have been required. A total HAP emission limit was required to ensure HAP major source thresholds are not exceeded. Permit Conditions 3.9 through 3.12 allow the use of daily glue and coating usage scenarios when the permittee demonstrates that a daily usage scenario complies with emission limits and TAP increments prior to implementation. Permit Conditions 3.14 through 3.17 require monitoring to ensure compliance with coating usage scenarios, emission limits, and TAP increments.

Added Permit Conditions 3.6 and 3.7

Prohibitions on use of methylene chloride and spray coatings containing target HAP were included to ensure non-applicability of 40 CFR 63, Subpart HHHHHH for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (refer to the MACT/GACT Applicability (40 CFR 63) section for additional information).

Added Permit Condition 3.8

This condition requires that the permittee conduct all spray coating operations in the spray booth with the filters in place, exhaust fan operating, and doors or curtains closed, that the operation shall use a HVLP spray gun, and that the permittee shall maintain and operate the spray booth exhaust filter system in accordance with the manufacturer's specifications. Emission calculations assumed the reduction of particulate emissions from spray coating operations based on the control and transfer efficiencies specified.

Added Permit Condition 3.14

This condition requires that the permittee maintain records of all odor complaints received, perform appropriate corrective actions, and maintain records of corrective actions taken at the facility for gluing and coating operations. This was required because such operations are expected to have odors that might be offensive to their immediate neighbors.

PUBLIC REVIEW

Public Comment Opportunity

An opportunity for public comment period on the application was provided in accordance with IDAPA 58.01.01.209.01.c or IDAPA 58.01.01.404.01.c. During this time, there was a request for a public comment period on DEQ's proposed action. Refer to the chronology for public comment opportunity dates.

Public Comment Period

A public comment period was made available to the public in accordance with IDAPA 58.01.01.209.01.c. During this time, comments were not submitted in response to DEQ's proposed action. Refer to the chronology for public comment period dates.

APPENDIX A – EMISSION INVENTORIES

Annual Usage (gal/yr)	VOC Emissions			HAP Emissions			TAP Emissions		
	(lb/day) ⁴	(lb/yr) ⁴	(tons/yr)	(lb/day) ⁵	(lb/yr) ⁵	(tons/yr)	(lb/day) ^{5,7}	(lb/hr) ^{5,7}	(tons/yr) ⁸
3,200	0.18	53.33	0.03	--	--	--	--	--	--
98.50	1.35	402.2	0.20	0.41	121.1	0.06	3.16E-04	0.09	0.28
							6.77E-05	0.02	0.06
							6.77E-05	0.02	0.06
22.16	0.30	90.50	0.05	0.06	18.46	9.23E-03	7.23E-05	0.02	0.06
							1.03E-05	3.09E-03	9.23E-03
							1.55E-05	4.63E-03	0.01
1,601	22.75	6,803	3.40	--	--	--	4.37E-03	1.31	3.90
							1.31E-03	0.39	1.17
							8.01E-04	0.24	0.72
369.4	5.25	1,570	0.78	--	--	--	1.01E-03	0.30	0.90
							3.03E-04	0.09	0.27
							1.85E-04	0.06	0.17
2,832	43.41	12,980	6.49	19.63	5,870	2.94	6.68E-03	2.00	5.97
							3.28E-03	0.98	2.94
							6.79E-04	0.20	0.61
							6.79E-04	0.20	0.61
40.63	0.06	16.93	8.47E-03	1.07	320.8	0.16	1.20E-04	0.04	0.11
							5.98E-05	0.02	0.05
							1.99E-05	5.96E-03	0.02
7.63	0.01	3.18	1.59E-03	0.15	44.32	0.02	2.33E-05	6.98E-03	0.02
							3.59E-06	1.07E-03	3.21E-03
							1.44E-06	4.30E-04	1.28E-03
13.38	5.58	5.58	2.79E-03	0.26	77.70	0.04	4.09E-05	0.01	0.04
							6.30E-06	1.88E-03	5.63E-03
							2.52E-06	7.53E-04	2.25E-03
							9.45E-06	2.82E-03	8.45E-03
10.54	8.43E-04	0.25	1.26E-04	0.16	47.48	0.02	2.55E-05	7.63E-03	0.02
							--	--	--
							2.55E-06	7.63E-04	2.28E-03
							--	--	--
							2.55E-06	7.63E-04	2.28E-03
							--	--	--
29.55	0.58	173.30	0.09	0.58	173.30	0.09	5.11E-07	1.53E-04	4.57E-04
							5.11E-07	1.53E-04	4.57E-04
							4.85E-05	0.01	0.04
							4.85E-05	0.01	0.04
6,552	8.75	2,730	1.37	--	--	--	2.42E-05	7.25E-03	0.02
							--	--	--
							0.05	2.55E-03	6.82E-04
							0.05	2.55E-03	6.82E-04
TOTAL	88.22	24,828	12.41	22.32	6,673	3.34	0.05	2.55E-03	6.82E-04
							0.05	2.55E-03	6.82E-04
							0.05	2.55E-03	6.82E-04
TOTAL	88.22	24,828	12.41	22.32	6,673	3.34	0.22	6.08	18.14

CAS #	Emissions Based on Current Limits (lb/hr) ¹	Emissions Based on Proposed Modifications (lb/hr) ²	Increase in Emissions (lb/hr)	IDEQ Screening Level (lb/hr)	Modeling/Screening Required (Y/N)
67-64-1	0.95	0.51	-0.44	119.00	NO
94-36-0	2.60E-03	0.01	6.18E-03	0.333	NO
128-37-0	0.00	7.63E-04	7.63E-04	0.667	NO
56-23-5	0.00	1.53E-04	1.53E-04	4.40E-04	NO
108-94-1	1.30	0.71	-0.59	6.67	NO
110-54-3	0.09	0.01	-0.08	12.00	NO
123-31-9	0.00	1.53E-04	1.53E-04	0.133	NO
79-41-4	0.00	3.72E-03	3.72E-03	4.67	NO
78-93-3	1.40	1.02	-0.38	39.30	NO
80-62-6	0.02	0.05	0.04	27.30	NO
100-42-5	0.00	1.18E-03	1.18E-03	6.67	NO
109-99-9	6.06	3.72	-2.34	39.30	NO
108-88-3	0.09	0.01	-0.08	25.00	NO
14808-60-7	0.00	5.10E-03	5.10E-03	6.70E-03	NO
61790-53-2	0.00	2.55E-03	2.55E-03	0.67	NO
1314-13-2	0.00	2.55E-03	2.55E-03	0.67	NO

culates. Therefore, emissions calculated assuming transfer efficiency of 65% and paint booth control of 98.81% for PM.

ary

Paint Density (lb/gal)	Percent Solids (wt%)	Max Hourly Usage (gal/hr)	Max Daily Usage (gal/day)	Max Annual Usage (gal/yr)	Transfer Efficiency (%)	Filter Collection Efficiency (%)	PM/PM ₁₀ /PM _{2.5} Uncontrolled Emissions			PM/PM ₁₀ /PM _{2.5} Controlled Emissions		
							(lb/hr)	(lb/day)	(tons/yr)	(lb/hr)	(lb/day)	(tons/yr)
11.18	55.7	2.10	21	6,552	65	98.81	4.58	45.77	7.14	0.054	0.54	0.08

included in Attachment 8
d in Attachment 6
y PM_{2.5} limit of 0.054 lb/hr.

ration (6 days per week, 52 weeks per year)
view of previous IDEQ permits and equivalent technology (See Attachment 9)

Percent Solids (wt%)/100] * Max Usage (gal/hr or gal/day)) * [1 - (Transfer Efficiency (%)/100)]
: Solids (wt%)/100] * Max Annual Usage (gal/yr)) * [1 - (Transfer Efficiency (%)/100)] * (1 ton/2000 lb)
cent Solids (wt%)/100] * Max Usage (gal/hr or gal/day)) * [1 - (Transfer Efficiency (%)/100)] * [1 - (Control Efficiency (%)/100)]
olids (wt%)/100] * Max Annual Usage (gal/yr)) * [1 - (Transfer Efficiency (%)/100)] * (1 ton/2000 lb) * [1 - (Control Efficiency (%)/100)]

APPENDIX B – SPRAY BOOTH AND SPRAY GUN MANUFACTURER SPECIFICATIONS

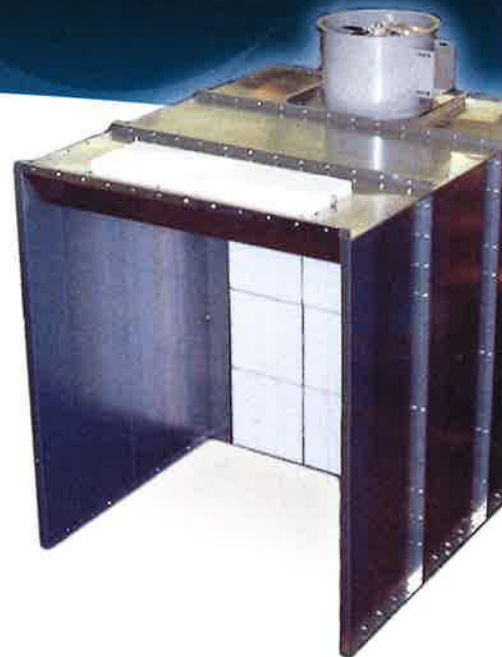
Open Front Booths



- **Heavy Duty Bolted Construction**
- **Batch and Automated Production Designs**
- **Easy to Install**
- **ETL Certification Available**
- **Available in a Wide Range of Designs to Meet Any Production Requirement**

Designed for both batch and conveyorized production systems, Col-Met's Open Front Paint Booths offer a safe and clean environment for any type of finishing operation. Airflow is drawn in through the open front, across the work area and exhausted through a filter bank in the back of the booth. The dry arrestor filters trap the airborne overspray particles before the filtered air is discharged through the exhaust system and into the atmosphere.

Conveyor pass-through openings can be as much as 25% of the booth open front area, without requiring additional exhaust fan capacity. Specially engineered enclosures may be designed to meet your requirements.



Booth Features

- >> **Heavy Duty Construction** Booths are constructed from 18-gauge, prime quality galvanized steel and are engineered with corresponding support structure as booth dimensions demand. All panels and support members are precision punched for easy nut and bolt assembly.
- >> **Industry-Leading Lighting** Booths receive bright, even illumination from four-tube, 48" long, 32 watt, fluorescent light fixtures. Col-Met light fixtures are ETL listed (Class 1 Division 2, Group A, B, C, D and Class 2 division 2, Group F and G.) and are supplied with a multi-voltage ballast to accept any voltage between 110vac and 277vac.
- >> **Paint Arrestors** High efficiency RP Paint Arrestors which have a custom designed layering system to increase the overall efficiency of the booth. Filters are lab tested with over a 99% particulate removal efficiency.
- >> **Efficient Fans & Motors** Quality brand-name tubeaxial fans and motors
- >> **Air Solenoid Valve** Interlocked to the exhaust fan and air supply for the spray application equipment
- >> **Meets Quality Performance Standards** Spray booths manufactured by Col-Met meet and/or exceed all applicable OSHA and NFPA regulations.

Booth Options

- >> LED lighting
- >> Air replacement units and intake chambers can be added
- >> 2-Stage filtration, 3-stage filtration, NESHAP filtration
- >> Reduced airflows for automatic spray operations
- >> Durable powder coated white option available
- >> Conveyor and crane slots/openings available
- >> Control panel and other electrical components can be purchased separately



UL & ETL listed control panel



Air solenoid valve



5/16" bolts with serrated lock nut



Industry-leading light levels

Open Front Booths



Selecting a Booth Size

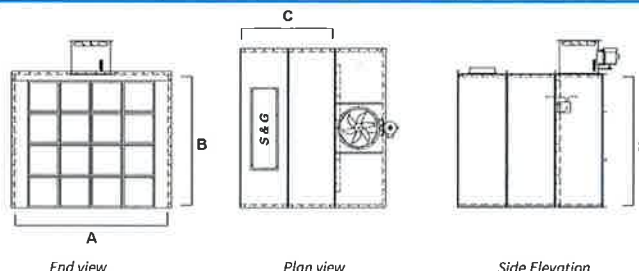
Col-Met can design and build spray booths in a variety of sizes and configurations. Although our team can engineer a custom booth to fit your needs, below are standard sizes that are quickly available to you.

Model Number	Interior Dimensions			Exterior Dimensions			Qty. Lights	Qty. Filters	Fan Diameter	Fan HP	SCFM @ 1/2" SP	Shipping Weight
	Width	Height	Length	Width	Height	Length						
IB-04-07-05-00-S*	4'-0"	7'-0"	5'-0"	4'-4"	7'-2"	7'-2"	0	8	18"	.75HP	3,500	675
IB-06-07-05-00-S*	6'-0"	7'-0"	5'-0"	6'-4"	7'-2"	7'-8"	1	12	24"	1HP	5,250	940
IB-08-07-05-00-S*	8'-0"	7'-0"	5'-0"	8'-4"	7'-2"	7'-8"	1	16	24"	2HP	7,150	1,240
IB-10-07-05-00-S*	10'-0"	7'-0"	5'-0"	10'-4"	7'-2"	8'-2"	2	20	30"	2HP	8,750	1,630
IB-12-07-07-00-S*	12'-0"	7'-0"	7'-0"	12'-4"	7'-2"	10'-2"	2	24	30"	3HP	10,500	1,870
IB-14-07-07-00-S*	14'-0"	7'-0"	7'-0"	15'-0"	7'-6"	10'-8"	2	32	30"	3HP	12,250	2,450
IB-16-07-07-00-S*	16'-0"	7'-0"	7'-0"	17'-0"	7'-6"	10'-8"	2	36	30"	5HP	14,000	2,650
IB-18-07-07-00-S*	18'-0"	7'-0"	7'-0"	19'-0"	7'-6"	11'-8"	3	40	36"	5HP	15,750	3,000
IB-20-07-07-00-S*	20'-0"	7'-0"	7'-0"	19'-0"	7'-6"	11'-8"	3	40	36"	5HP	17,500	3,000
IB-04-08-05-00-S*	4'-0"	8'-0"	5'-0"	4'-4"	8'-2"	7'-2"	0	8	18"	.75HP	4,000	703
IB-06-08-05-00-S*	6'-0"	8'-0"	5'-0"	6'-4"	8'-2"	7'-8"	1	12	24"	1.5HP	6,000	1,020
IB-08-08-05-00-S*	8'-0"	8'-0"	5'-0"	8'-4"	8'-2"	7'-8"	1	16	24"	3HP	8,000	1,490
IB-10-08-05-00-S*	10'-0"	8'-0"	5'-0"	10'-4"	8'-2"	8'-2"	2	20	30"	3HP	10,000	1,780
IB-12-08-07-00-S*	12'-0"	8'-0"	7'-0"	12'-4"	8'-2"	10'-2"	2	24	30"	3HP	12,000	2,270
IB-14-08-07-00-S*	14'-0"	8'-0"	7'-0"	15'-0"	8'-6"	10'-8"	2	32	30"	5HP	14,000	2,600
IB-16-08-07-00-S*	16'-0"	8'-0"	7'-0"	17'-0"	8'-6"	11'-8"	2	36	36"	5HP	16,000	2,810
IB-18-08-07-00-S*	18'-0"	8'-0"	7'-0"	19'-0"	8'-6"	11'-8"	3	40	36"	5HP	18,000	3,150
IB-20-08-07-00-S*	20'-0"	8'-0"	7'-0"	21'-0"	8'-6"	11'-8"	4	44	42"	5HP	20,000	3,690
IB-04-10-05-00-S*	4'-0"	10'-0"	5'-0"	4'-4"	10'-2"	7'-2"	0	10	18"	1.5HP	5,000	1,100
IB-06-10-05-00-S*	6'-0"	10'-0"	5'-0"	6'-4"	10'-2"	7'-8"	1	15	24"	2HP	7,500	1,650
IB-08-10-05-00-S*	8'-0"	10'-0"	5'-0"	8'-4"	10'-2"	8'-2"	1	20	30"	2HP	10,000	1,900
IB-10-10-05-00-S*	10'-0"	10'-0"	5'-0"	10'-4"	10'-2"	8'-2"	2	25	30"	3HP	12,500	2,350
IB-12-10-07-00-S*	12'-0"	10'-0"	7'-0"	12'-4"	10'-2"	10'-2"	2	30	30"	5HP	15,000	2,500
IB-14-10-07-00-S*	14'-0"	10'-0"	7'-0"	15'-0"	10'-6"	11'-8"	2	40	36"	5HP	17,500	3,000
IB-16-10-07-00-S*	16'-0"	10'-0"	7'-0"	17'-0"	10'-6"	11'-8"	2	45	42"	5HP	20,000	3,400
IB-18-10-07-00-S*	18'-0"	10'-0"	7'-0"	19'-0"	10'-6"	11'-8"	3	50	42"	5HP	22,500	4,000
IB-20-10-07-00-S*	20'-0"	10'-0"	7'-0"	21'-0"	10'-6"	11'-8"	4	55	42"	7.5HP	25,000	4,400
IB-04-12-05-00-S	4'-0"	12'-0"	5'-0"	4'-4"	12'-2"	7'-8"	0	12	24"	1.5HP	6,000	975
IB-06-12-05-00-S*	6'-0"	12'-0"	5'-0"	6'-4"	12'-2"	7'-8"	1	18	24"	3HP	9,000	1,500
IB-08-12-05-00-S*	8'-0"	12'-0"	5'-0"	8'-4"	10'-2"	8'-2"	1	24	30"	3HP	12,000	1,700
IB-10-12-05-00-S*	10'-0"	12'-0"	5'-0"	10'-4"	12'-2"	8'-2"	2	30	30"	5HP	15,000	2,200
IB-12-12-07-00-S*	12'-0"	12'-0"	7'-0"	12'-4"	12'-2"	11'-2"	2	36	36"	5HP	18,000	2,500
IB-14-12-07-00-S*	14'-0"	12'-0"	7'-0"	15'-0"	12'-6"	11'-8"	2	48	42"	5HP	21,000	3,200
IB-16-12-07-00-S*	16'-0"	12'-0"	7'-0"	17'-0"	12'-6"	11'-8"	2	54	42"	7.5HP	24,000	3,500
IB-18-12-07-00-S*	18'-0"	12'-0"	7'-0"	19'-0"	12'-6"	11'-8"	3	60	42"	7.5HP	27,000	4,100
IB-20-12-07-00-S*	20'-0"	12'-0"	7'-0"	21'-0"	12'-6"	11'-8"	4	66	42"	10HP	30,000	4,700
Ref. Key	A	B	C		D							

* 5 Day Lead Time After CEFS Order

Acknowledgement

ONLY for these items without any modifications.
Any additional items on the order may impact lead time. This list may change periodically.
Please check our website, www.colmet.com, to see the latest 5 Day Lead Time list.



Follow Us:

FIBERGLASS PAINT ARRESTOR PADS & ROLLS *Patent Pending*

Air Flow Technology's fiberglass overspray (extraction) collector rolls and pads are available in a variety of widths, weights, and depths. Standard weights include our 15g/ft², 18g/ft² (w/polyester backing), and 22g/ft².

Media Design:

15g The progressively dense two-stage 15g media is manufactured from continuous strands of glass fibers engineered to collect and retain a wide range of automotive and industrial-type coatings. The backing is a tightly woven 100% fiberglass construction allowing low initial static pressure. This widely popular overspray media is green/white in color and provides compliant efficiency at an economical price. Air Enters White Side, Air Exits Green Side

22g The progressively dense heavy-duty two-stage 22g media is 50% heavier than the 15g counterpart thus providing additional service life and removal efficiency. As with the 15g product, the 22g product is manufactured from continuous strands of glass fibers with a 2.5" loading area backed with a 100% fiberglass scrim backing. The 22g is compliant with current EPA standards as well as many local municipal regulations. The 22g fiberglass construction provides excellent removal efficiency at an economic price. Air Enters White Side, Air Exits Yellow Side

18g (PB) The progressively dense three-stage 18g media (with polyester backing) is a combination of the 15g technology with the added high removal efficiency of a polyester backing. As with the 15g products, the 18g poly-backed product features a 100% fiberglass entry layer and tightly woven fiberglass scrim backing. Unlike the 15g, the 18g includes a 100% synthetic polyester backing which ensures some of the highest removal efficiencies available to modern overspray collectors. The 18g poly-backed product provides the highest removal efficiency of the three standard AFT fiberglass filters.



PERFORMANCE DATA

Fiberglass Overspray Collector Facts:

1. Fiberglass is one of the fastest growing air filtration media in the marketplace. Characteristics inherent to fiberglass make it a safe, low-cost, environmentally friendly alternative to other products such as cellulose, synthetic, or styrofoam products.
2. Fiberglass typically has the lowest initial static pressure of all overspray collectors. This means the filter provides better air-flow from the start, and, tends to maintain better air-flow for a longer period of time.
3. Unlike any other overspray collector, Fiberglass is highly compressible. This translates to lower manufacturing, distribution, freight, storage, and disposal costs.
4. Fiberglass is a powerful, low-cost pre-filter when used in combination with any of AFT's diverse line of secondary panel filters and multi-pocket cubes.

Overspray Collection Options:

From intake air to emissions control, Air Flow Technology can help you identify the most efficient filtration combination for your particular booth. AFT offers a complete range and various configurations of Intake Air and Exhaust Filtration products.

<i>Filter Type</i>	<i>Average Efficiency (%)*</i>	<i>Capacity (lbs/20"x20" Pad)</i>	<i>Initial Resistance ('w.c.)</i>
15g	98.81	0.9	0.02
22g	99.03	1	0.02
18g (PB)	99.79	2.4	0.02

- All Air Flow Technology fiberglass filters are rated UL Class 2 for flammability
- All Air Flow Technology filters are tested per ASHRAE 52.1 and comply with EPA Standard 40 CFR Part 63

Air Flow Technology provides independent test data on particle size efficiency and initial resistance to rated air flow on all of its paint filtration products. This information is provided to assist you in the proper selection of a filter system for your particular application. Whether your requirement is low static pressure (resistance) or high performance, you can depend on the independent data provided to guide your selection process to the proper AFT product.

For other quality HVAC, Industrial Finishing, and Paint Spraybooth Filtration Products, refer to HVAC Filtration All Product Bulletin HPB1, and Paint Spray Booth Filtration All Product Bulletin PPB1.

AIR FLOW TECHNOLOGY^{inc.}

Kenosha, WI 53144

(O) 800-537-5454 (F) 262-657-2210
(E) sales@airflowtechnology.com

www.airflowtechnology.com

Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

REV 15g

CENTRALPNEUMATIC

20 oz. high volume, low pressure gravity feed spray gun



NOTICE

CLEAN IMMEDIATELY

Clean the Spray Gun IMMEDIATELY after EVERY use, in between coats, and when it will be idle for more than 5 minutes.

Delayed or inadequate cleaning will permanently clog the Spray Gun.

Visit our website at: <http://www.harborfreight.com>

Email our technical support at: productsupport@harborfreight.com

ITEM 62300

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

⚠WARNING

Read this material before using this product.
Failure to do so can result in serious injury.
SAVE THIS MANUAL.






NOTICE

Clean the Spray Gun IMMEDIATELY after EVERY use.
Delayed or inadequate cleaning will permanently clog the Spray Gun.
Latex paint hardens quickly and permanently inside Spray Gun.

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CENTRALPNEUMATIC®**WARNING SYMBOLS AND DEFINITIONS**

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
	Addresses practices not related to personal injury.

IMPORTANT SAFETY INSTRUCTIONS**INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS**

The warnings and precautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

WARNING – When using tools, basic precautions should always be followed, including the following:

Work Area

- Keep the work area clean and well lit.**
Cluttered benches and dark areas increase the risks of electric shock, fire, and injury to persons.
- Keep bystanders, children, and visitors away while operating the tool.** Distractions are able to result in the loss of control of the tool.

NOTICE

Clean the Spray Gun IMMEDIATELY after EVERY use.
Delayed or inadequate cleaning will permanently clog the Spray Gun.
Latex paint hardens quickly and permanently inside Spray Gun.

Specific Safety Instructions

1. Do not direct spray at people or animals.
2. Do not exceed maximum air pressure.
3. Do not spray near open flames, pilot lights, stoves, heaters, the air compressor, or any other heat source. Most solvents and coatings are highly flammable, particularly when sprayed. Maintain a distance of at least 25 feet from the air compressor. If possible, locate the air compressor in a separate room.
4. Read all of the information concerning coating products and cleaning solvents.
Do not use chlorinated solvents (e.g. 1-1-1 trichloroethylene and dichloromethane, also known as methylene chloride) to clean spray guns. Many spray guns contain aluminum, which reacts strongly to chlorinated solvents. Contact the solvent or coating manufacturer as needed regarding potential chemical reactions.
5. **RISK OF INJECTION** - Do not point spray gun at any person or any part of the body. In case of skin injection, seek medical attention immediately.
6. Industrial applications must follow OSHA requirements.
7. Spraying hazardous materials may result in serious injury or death. Do not spray pesticide, acid, corrosive material, fertilizer, or toxic chemicals.
8. Paints and solvents may be harmful or fatal if swallowed or inhaled. Avoid prolonged skin contact with solvents or paints as they will irritate skin. After any contact, immediately wash off exposed area with hot, soapy water.
9. Attach all accessories properly to the tool before connecting the air supply. A loose accessory may detach or break during operation.
10. Install an in-line shutoff valve to allow immediate control over the air supply in an emergency, even if a hose is ruptured.
11. Air hose fittings may get hot during use. Allow fittings to cool before disconnecting.
12. **WARNING:** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:
 - Lead from lead-based paints
 - Crystalline silica from bricks and cement or other masonry products
 - Arsenic and chromium from chemically treated lumberYour risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles. (California Health & Safety Code § 25249.5, *et seq.*)
13. **WARNING:** The brass components of this product contain lead, a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. (California Health & Safety Code § 25249.5, *et seq.*)

Specifications

Air Pressure Range	20–70 PSI	Cup Capacity	20 fl. oz.
Maximum Air Pressure	70 PSI	Air Consumption	6 CFM @ 40 PSI
Air Inlet	1/4 IN.–18 NPS		

SAFETY

SETUP

OPERATION

MAINTENANCE

APPENDIX C – PROCESSING FEE

PTC Processing Fee Calculation Worksheet

Instructions:

Fill in the following information and answer the following questions with a Y or N. Enter the emissions increases and decreases for each pollutant in the table.

Company: IPEX USA LLC
 Address: 640 South Highway 91
 City: Preston
 State: Idaho
 Zip Code: 83263
 Facility Contact: Chris Kirby
 Title: Plant Manager
 AIRS No.: 041-00014

- N Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N
- Y Did this permit require engineering analysis? Y/N
- N Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO _x	0.0	0	0.0
SO ₂	0.0	0	0.0
CO	0.0	0	0.0
PM ₁₀	0.2	0	0.2
VOC	9.8	0	9.8
TAP/HAP	0.0	0	0.0
Total:	0.0	0	10.0
Fee Due	\$ 2,500.00		

Comments: TAP/HAP are included in PM₁₀ and VOC totals, and are not calculated separately for purposes of fee assessment (i.e., TAP/HAP increase has been reported as zero to avoid double-counting).